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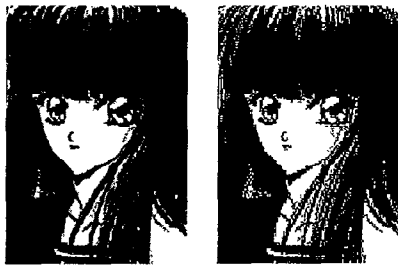
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divide overflow

Not dithered

Dithered

Dithering. A halftone image (left) and a dithered image (right), both at 72 cells per inch.

a circular set of formulas is repeatedly recalculated (iterated), with the results of each iteration moving further from a stable solution. *Compare* convergence.

divide overflow \di-vīd' ō'vər-flō' *n.* See overflow error.

division by zero \di-vīzh'ən bī zēr'ō' *n.* An error condition caused by an attempt to divide a number by zero, which is mathematically undefined, or by a number that is sufficiently near to zero that the result is too large to be expressed by the machine. Computers do not allow division by zero, and software must provide some means of protecting the user from program failure on such attempts.

.dj \dot'D-J' *n.* On the Internet, the major geographic domain specifying that an address is located in Djibouti.

.dk \dot'D-K' *n.* On the Internet, the major geographic domain specifying that an address is located in Denmark.

.dll \dot'D-L' *n.* A file extension indicating a compressed .dll file, used in a Windows setup procedure. *See also* .dll.

DLC \D'L-C' *n.* Acronym for **Data Link Control**. An error-correction protocol in the Systems Network Architecture (SNA) responsible for transmission of data between two nodes over a physical link. *See also* HDLC, SNA.

.dll \dot'D-L' *n.* A file extension for a dynamic-link library. *See also* dynamic-link library.

DLL \D'L-L' *n.* *See* dynamic-link library.

DLT \D'L-T' *n.* *See* digital linear tape.

DMA \D'M-A' *n.* *See* direct memory access.

DNS server

DMD \D'M-D' *n.* *See* Digital Micromirror Display.

DMI \D'M-I' *n.* Acronym for **Desktop Management Interface**. A system for managing the configurations and status of PCs on a network from a central computer. In DMI an agent program runs in the background on each machine and returns information or performs some action (as specified by a file on that machine) in response to a query received from the central computer. The actions to be performed by the agent may include watching for errors and reporting them to the central computer as they occur; for example, a printer may be set up to report to the central computer when paper runs out or jams. DMI was developed by the DMTF (Desktop Management Task Force), a consortium of computer equipment manufacturers, and competes with SNMP (although the two can coexist on the same system) *See also* agent (definition 1), DMTF. *Compare* SNMP.

DMI \D'M-L' *n.* *See* data manipulation language.

DMT \D'M-T' *n.* *See* discrete multitone.

DMTF \D'M-T-F' *n.* Acronym for **Desktop Management Task Force**. A consortium formed in 1992 to develop standards for PC-based stand-alone and networked systems based on user and industry needs.

DNS \D'N-S' *n.* 1. Acronym for **Domain Name System**. The system by which hosts on the Internet have both domain name addresses (such as bluestem.prairienet.org) and IP addresses (such as 192.17.3.4). The domain name address is used by human users and is automatically translated into the numerical IP address, which is used by the packet-routing software. *See also* domain name address, IP address. 2. Acronym for **Domain Name Service**. The Internet utility that implements the Domain Name System (see definition 1). DNS servers, also called *name servers*, maintain databases containing the addresses and are accessed transparently to the user.

DNS server \D'N-S' sər'vər' *n.* A computer that can answer Domain Name Service (DNS) queries. The DNS server keeps a database of host computers and their corresponding IP addresses. Presented with the name apex.com, for example, the DNS server would return the IP address of the hypothetical company Apex. *See also* DNS (definition 2), IP address.

DoD \D`O-D` \ *n.* See U.S. Department of Defense.

DO loop \dōō lōōp` \, D-O` \ *n.* A control statement used in programs that executes a section of code a number of times until a specified condition is met. DO loops are found in FORTRAN and Basic, among other languages. *See also* iterative statement. *Compare* FOR loop.

domain \dō-mān` \ *n.* **1.** In database design and management, the set of valid values for a given attribute. For example, the domain for the attribute AREA-CODE might be the list of all valid three-digit numeric telephone area codes in the United States. *See also* attribute (definition 1). **2.** For Windows NT Advanced Server, a collection of computers that share a common domain database and security policy. Each domain has a unique name. **3.** In the Internet and other networks, the highest subdivision of a domain name in a network address, which identifies the type of entity owning the address (for example, .com for commercial users or .edu for educational institutions) or the geographical location of the address (for example, .fr for France or .sg for Singapore). The domain is the last part of the address (for example, www.acm.org). *See also* domain name.

domain name \dō-mān` nām` \ *n.* An address of a network connection that identifies the owner of that address in a hierarchical format: *server.organization.type* For example, www.whitehouse.gov identifies the Web server at the White House, which is part of the U.S. government.

domain name address \dō-mān` nām a`dres, ə-dres` \ *n.* The address of a device connected to the Internet or any other TCP/IP network, in the hierarchical system that uses words to identify servers, organizations, and types, such as www.logos.net. *See also* TCP/IP.

domain name server \dō-mān` nām sər`vər` \ *n.* *See* DNS server.

Domain Name System \dō-mān` nām si`stəm` \ *n.* *See* DNS (definition 1).

Domain Naming System \dō-mān` nā`mēng si`stəm` \ *n.* *See* DNS (definition 1).

dongle \dong`l\ *n.* *See* hardware key.

do-nothing instruction \dōō`nə-thēng in-struk`-shən\ *n.* *See* no-operation instruction.

dopant \dō`pənt\ *n.* An impurity that is added in small quantities to semiconductor material during

the manufacture of diodes, transistors, and integrated circuits. The resistance of a semiconductor falls between the resistance of a conductor and the resistance of an insulator (hence its name); dopants are added to the semiconductor to increase its conductivity. The type and amount of dopant determine whether the semiconductor will be N-type (in which current is conducted by free electrons) or P-type (in which current is conducted by electron vacancies, called "holes"). Common dopants include arsenic, antimony, bismuth, and phosphorus. *See also* N-type semiconductor, P-type semiconductor.

DOS \dos, D`O-S` \ *n.* Acronym for **disk operating system**. A generic term describing any operating system that is loaded from disk devices when the system is started or rebooted. The term originally differentiated between disk-based systems and primitive microcomputer operating systems that were memory-based or that supported only magnetic or paper tape. *See also* MS-DOS, PC-DOS.

DOS box \dos` boks, D`O-S` \ *n.* **1.** An OS/2 process that supports the execution of MS-DOS programs. *Also called* compatibility box. **2.** A computer that uses the MS-DOS or PC-DOS operating system, as opposed to one that runs some other operating system, such as UNIX.

DOS extender \dos` eks-ten`dər, D`O-S` \ *n.* A program designed to extend the 640 KB of conventional memory available for use by DOS and DOS-based applications. A DOS extender works by claiming a portion of reserved memory (memory used by other parts of the system, such as the video adapter, the ROM BIOS, and the I/O ports).

DOS prompt \dos` prompt, D`O-S` \ *n.* The visual indication from the MS-DOS command processor that the operating system is ready to accept a new command. The default DOS prompt is a path followed by a greater-than sign (for example, C:>), the user can also design a custom prompt with the PROMPT command.

dot \dot\ *n.* **1.** In the UNIX, MS-DOS, OS/2, and other operating systems, the character that separates a filename from an extension as in TEXT.DOC (pronounced "text-dot-doc"). **2.** In computer graphics and printing, a small spot combined with others in a matrix of rows and